

# NEVADA DIVISION OF ENVIRONMENTAL PROTECTION FACT SHEET

(pursuant to NAC 445A.236)

**Permittee Name:** Gerlach General Improvement District  
P.O. Box 209  
Gerlach, NV 89412

**Permit Number:** NEV20010

**Location:** Approximately one-half (1/2) mile south of Gerlach  
Washoe County, Nevada

Latitude: 40° 30' N, Longitude: 119° 21' W  
Township 33N, Range 22E, Section 2

## **General:**

Gerlach General Improvement District (GID) provides residential sewer service to approximately 185 full-time residents, and commercial service to a grocery store, bars, motel (approximately 50 units) and a restaurant. Peak flows occur twice yearly, during the annual Burning Man event in August/September, and during the fall big game hunting season. One lift station serves five homes at the head of the collection system; all other flow is by gravity. There are no known industrial dischargers.

The wastewater treatment facility (WWTF) is located approximately one-half mile south-southeast of the town of Gerlach. The head works consist of a Palmer-Bowlus flume channel and a diversion vault. The treatment ponds #1 and #2 are twin  $\frac{3}{4}$  acre facultative ponds operated in parallel. Effluent from the treatment ponds is discharged for evaporation/percolation into pond #3, a 9- $\frac{1}{2}$  acre percolation basin. In 2002, pond #4, an additional 1 $\frac{3}{4}$ -acre evaporation/percolation pond to receive any overflow from pond #3, was constructed. Flow is measured by staffing the flume channel weekly. As stated, the facultative ponds are operated in parallel, and are alternately rotated in and out of service.

The current Water Pollution Control permit does not require groundwater monitoring at this site, due to the high TDS of the geothermal water below the area. Drinking water is obtained from a source approximately 12 miles from the town.

## **Flow:**

The mean monthly average and daily maximum influent flow to the WWTF during the term of the current permit are 0.011 and 0.014 MGD, respectively. The measured influent is well below the permit flow limitations. These limitations are:

Effluent Flow: 0.014 MGD 30-day Average  
0.026 MGD Daily Maximum

## **Receiving Water Characteristics:**

Groundwater in the area near the WWTF is not encountered within the first 20-30 feet below surface. Groundwater is geothermal, and is very high in TDS (4100 to 4800 mg/l). Groundwater in the area is not presently used for any purpose.

### **Effluent Characteristics**

Influent to the facility was previously limited to 52.5 pounds CBOD<sub>5</sub> per day. Effluent was previously monitored for TSS. Monitoring results for the term of the current permit indicate average values of 12.8 pounds per day and 108 mg/l, for influent CBOD<sub>5</sub> loading and effluent TSS, respectively. The facultative ponds have not been able to meet the secondary treatment standard of 90 mg/l TSS due to algae growth.

The renewed permit will require that the facility be operated in such a manner as to meet post primary treatment standards.

### **Proposed Determination:**

The Division has made the tentative determination to renew the proposed groundwater discharge permit for a period of five (5) years with specific requirements for achieving effluent compliance and protection of State groundwater resources.

### **Proposed Effluent Limitations and Special Conditions:**

Discharges from the Gerlach GID WWTF to groundwater of the State will be limited and monitored as follows:

**Table 1: Plant Discharge Limitations**

| PARAMETER                              | DISCHARGE LIMITATIONS |               | MONITORING REQUIREMENTS |                   |
|--|-----------------------|---------------|-------------------------|-------------------|
|  | 30-Day Average        | Daily Maximum | Measurement Frequency   | Sample Type       |
| Flow, MGD<br>(Influent)                | 0.014                 | 0.026         | Weekly                  | Staff Measurement |
| CBOD <sub>5</sub> , mg/l<br>(Effluent) | 40                    | 60            | Quarterly               | Discrete          |
| TSS, mg/l<br>(Effluent)                | 90                    |               | Quarterly               | Discrete          |

Under this permit, the facultative ponds are not aerated, and are considered as “Waste Stabilization Ponds”. Because treatment in waste stabilization ponds is considered to be less effective than secondary treatment, special consideration may be given for effluent CBOD<sub>5</sub> limits. For this reason, the 30-Day Average and Daily Maximum CBOD<sub>5</sub> limits are set at 40 and 60 mg/L, respectively.

### **Schedule of Compliance:**

The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications, which the Administrator may make in approving the schedule of compliance.

1. Within ninety (90) days of the permit issuance date, the Permittee shall submit a revised Operations & Maintenance (O&M) Manual for the wastewater treatment and disposal facility, which will include the following:

- a. an updated seasonal maintenance plan for the two treatment ponds and the percolation basin; and
  - b. a written procedure for effluent sampling and handling.
2. Within ninety (90) days of the permit issuance date, the Permittee shall submit a time table for securing and installing a recording flowmeter for measuring inflow to the facility

**Rationale for Permit Requirements:**

The Division's rationale for the proposed monitoring conditions is as follows:

- *Flow*: Flow is tracked to ensure that the design capacity of the treatment pond is not exceeded, and that the proper monitoring regimen is followed when the facility nears design capacity.
- *CBOD<sub>5</sub>*: The Division requires the monitoring of effluent Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub> or Inhibited BOD) as an indicator of treatment performance in the pond. The limitations are set under special conditions of post-primary treatment. The renewed permit requires sampling on a quarterly basis.
- *TSS*: The TSS limit is set at 90 mg/L, at the standard expected for waste stabilization ponds. Other similarly operated waste stabilization ponds within the State meet the 90-mg/l standard.

**Procedures for Public Comment:**

The Notice of the Division's intent to renew a permit authorizing the facility to discharge secondary-treated effluent into groundwaters of the State, subject to the conditions contained within the permit is being sent to the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. All written comments are to be hand-delivered, postmarked (via mail) or transmitted to the Division via fax or e-mail **by 5:00 P.M. on May 9, 2005.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

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